

given psychological support from meditation and prayer, sometimes through use of drugs. The third terrace was where they would receive treatment for their physical symptoms and where they could recuperate. All the information was recorded and became an invaluable record of both successful and unsuccessful treatments. Trish went on to explain that Hippocrates was born on the island of Kos in around 460BC and the Asklepieion there was where he taught and learned. In addition he collated records from other Asklepieia all over Greece, going on to develop methodologies and therapies from his research. In doing so he founded medical science and divined the ethical responsibilities which resulted in the Hippocratic Oath, still sworn by doctors to the present day.

The ruins at the Asklepieion of Kos date from 2 centuries after the death of Hippocrates although finds have been made proving earlier use. The site was excavated under the Ottoman administration between 1902-5 by Rudolph Herzog after the discovery of a reference in an Egyptian papyrus.

Much of the site is still unexcavated, including the gymnasium, stadium and the theatre - Trish explained that she had spoken to Greek archaeologists who felt that there would be no immediate prospect of significant work there because of the economic crisis enveloping the country. In the meantime, the site unfortunately deteriorates.

All three speakers were warmly applauded by the assembled members who then made their way home through a cold January evening, probably wishing they were on Kos.



Asklepieion of Kos

Richard Stevens

Spring Programme

The archaeology of the Carlisle Northern Distributor Road - evidence for some of the earliest Cumbrians

Tue 9th April

Fraser Brown (Oxford Archaeology North)

Epiacum - the latest developments at Whitley Castle

Wed 15th May

Alastair Robertson (Local Historian)

The 'Miner-Farmer' project and moles, the archaeologist's little helpers

Summer Outings

Plans for the summer include the following:

- | | |
|------------------|---|
| June 20th | Evening walk round Shap - we plan to visit Keld chapel and inspect the remains of the prehistoric cursus. |
| July | Excavation-site visit (probably Cockermouth) |
| August | Summer fieldwork centred on the Bronze Age features visible on Brackenber Moor |
| September | Minibus trip to Segedunum Roman fort at Wallsend |

Dates and other details for these trips are still being finalized. Once agreed they will be announced at the April/May lecture meetings and published on the website and in the Summer Newsletter.

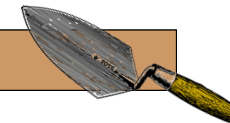


Appleby Archaeology Newsletter



Volume 16 Issue 1

Spring 2013



Group News

You may remember that bad weather meant we had to cancel Alastair Robertson's lecture on Epiacum last year. I'm now pleased to be able to tell you that we've been able to reschedule this for May. But would you please make a special note of the date? We couldn't get the Super Room on our usual "second Tuesday in the month". So where, on the back page of this Newsletter, Alastair is billed as speaking to us on Wednesday the 15th of May, this is not, for once, an error. Alastair really will be speaking on a Wednesday evening.

I also need to draw your attention to the survey form included with this newsletter. You'll no doubt recall that we had to increase our membership fees this year, one of the main reasons for this being the increased cost of printing and distributing the Group's newsletter.

The Committee has looked at the problem in the round. In the first instance we're not sure how much the membership values the newsletter - it's never easy to find contributors, for example. But the Newsletter is a permanent, high-quality record of our achievements and provides a reliable and effective means of communication.

At the same time, we are aware that using the Internet would be a great deal cheaper and would also open the way for two-way communication. This might, in turn, encourage a greater sense of community and enthusiasm.

Of course we have to bear in mind that not all members have Internet access (or may prefer not to use it), so there would have to be some way of supporting members who choose to opt out.

To get the debate going, we've included a survey form with this edition of the newsletter. If you feel that a change is needed, the form gives details of options which we consider to be viable alternatives and we invite you to select one (and only one) of these. If you have further suggestions, though, the form provides plenty of space for comments.

If we do decide on a change, please be assured that there would be a trial period during which we would run the new system alongside the existing newsletter.

Martin Joyce

Medieval Drainage, Sanitation and Health

Back in October last year, Apparch welcomed Don O'Meara from Wardell Armstrong Archaeology Ltd to the first talk of our winter season. Don's lecture was entitled Medieval Drainage, Sanitation and Health, an unusual and interesting subject.

Don began by defining his terms as 'the provision of water for human benefit and the removal of water that has been perceived as tainted by human, animal or industrial contact'. Such provision includes the sources, conduits, distribution, maintenance and modes of consumption relating to the water needs of human populations. Transportation of water to users can be by means of gravity as in aqueducts or canals, by pressurised pipes sealed from the surroundings and, for most of human history, by man, or more accurately, woman power, a method still much employed throughout the non-industrialised world.

Don explained that engineered water systems predate the



Water hasn't always come through pipes

Medieval period by many centuries. Both the Minoan and Greek civilisations had practical water supply and waste management systems. However, it was the Romans who brought a degree of sophistication not reached again in Britain until the 19th century. Although most of these early systems fell into decay, some elements remained functioning into the early medieval period, most notably the 'remarkable fountain' described by St Cuthbert on his visit to Carlisle in around 685AD. Other notable achievements of the Roman engineers, still to be seen around the forts on Hadrian's Wall, were the canals and aqueducts which brought water from distant sources for domestic consumption, as well as for bath houses and latrines. Don raised a laugh from his audience by quoting a rather familiar passage from a social commentator called Reg, who allegedly lived in an Eastern Province of the Empire in the 1st century AD - "All right, but apart from the sani-

Contents

Pages 1/2: *Medieval drainage, Sanitation and Health*

Pages 3/4: *Members Evening : January 2013*

Page 4: *Spring Lectures and Summer Outings*



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tation, medicine, education, wine, public order, irrigation, roads, the fresh water system and public health, what have the Romans ever done for us?"

After the fall of the Roman Empire and the inevitable decay of the infrastructure, there was a fairly long period before the rediscovery of the techniques required to provide engineered water and drainage in western Europe. The Crusaders brought back tales of sophisticated living in the Islamic world, as did the Normans, through their trading forays. The expansion of the monasteries in the 12th century was the key moment as large groups of monks came together to live. Their synchronised activities created high peak demands for water, and the wealth the monasteries were accumulating allowed investment to take place. In addition, sanitation and cleanliness were starting to be seen once again as moral goals - likewise the establishment of basic medical facilities for the brothers and, to a more limited extent, the local population. The Cistercians also held annual meetings amongst the hierarchy where ideas could be exchanged. Amusingly, medieval pilgrims to Santiago de Compostela were so amazed by the taps on public fountains and in religious establishments, that they were often stolen.

As may be expected, Royal palaces were also early innovators. Wolvesey Palace in Winchester is thought to be one of the earliest, boasting flushing latrines circa 1129-35.

Once these limited systems had been established by the monasteries, particularly those in urban areas, and also by the monarchy, the benefits of providing public water supplies began to be appreciated by those who held high office in the developing cities. Thus, a sense of civic pride, status and Christian charity helped to drive change during the 13th and 14th centuries. Canterbury (where it was not unknown for citizens to block supply pipes in order to emphasize a grievance) and Bristol were early adopters, as were many northern Italian and German cities. Dublin, probably through its links with Bristol, developed a water supply system in 1244. In London, an underground channel called the Great Conduit, was started in 1245, after the City acquired the springs near the Tyburn and built a reservoir to provide a head of water. Initially, it ran as far as Cheapside where there was a building from which citizens could draw water. As cities increased in size demand naturally grew from both domestic and, increasingly, industrial users. Brewing and tanning both required large volumes of water. Other cities were not so fortunate – York for instance had no piped water until 1650 and Don questioned the authenticity of the rather pleasant, sweet manure smell pervading the present day Jorvik Experience.

Don went on to explain that, clearly, civic water distribution systems could only be installed with the co-operation of the citizens. The works required were disruptive, required investment and an ongoing programme of maintenance, none of which could be achieved without a general agreement that the investment was a public good, overriding individual interests. A half built system, or one with parts missing because no agreement could be reached over cost or route, was no system at all. Professional water carriers were still a vital part of the water distribution network. In 1500, London had more than 4,000 people thus

employed. Regulations governing their work have been a valuable source of information about life in the cities.

The Romans had used lead pipes of standardised sizes so that fee paying consumers could be charged accordingly. Through excavation, we know that early medieval pipes were generally made of wood. Rolled lead came to be adopted widely and terracotta was also used, generally where pottery manufacture was already established. These early public supply systems only provided water to public facilities such as fountains and standpumps. However, it wasn't long before the more elevated and richer members of society wanted private supplies to their own houses. Originally, these supplies were provided through 'quill' pipes, so named because the diameter of the pipe was about the same as the quill of a swan's feather. Filling a kettle would probably have taken some patience.

Water quality was always a major factor in public provision and there was, until modern times, a fine balance between quality and quantity. Archaeology tells us that even in the medieval period, water filters were installed in certain supplies (eg when water was needed for medical purposes). But for the majority, raw water was the norm and the quality depended upon the source and the degree to which pollution could be controlled. One reason for beer being such a common drink was that it was safer to drink than water. It was well known that waste water should be kept distinct from fresh water supplies, and laws and proclamations were made to encourage hygiene. However, since the onus was on individual citizens to dispose of their own waste, and since few public facilities were available assist to with the process, ordinances were often ignored. Don explained that, although from the 21st century we view the medieval perception of waste as fairly objectionable, it should be seen in context. It had always been part of everyday life and the connection with disease was unknown.

It took the moral rectitude and ingenuity of the Victorians in the 19th century to turn this situation around and to properly survey, engineer and construct water supply and sewage systems, all for the public good. Corporations, sometimes founded by Acts of Parliament where necessary, took on the expense of construction and maintenance, charging consumers by means of the water rate. These are the systems inherited by today's privately owned water companies.

Don was thanked and applauded for his excellent talk.

Richard Stevens

You can view a sample from an interesting book on this subject (rather than having to pay £23 to buy it) if you Google 'medieval quill pipes'

Members' Evening : January 2013

The Annual General Meeting of the Appleby Archaeology Group was held on Tuesday, 8th Jan. After the formal business of the meeting had been disposed of, a series of short talks on various subjects of historical and archaeological interest was given by members.

The first speaker was Carol Dougherty who presented details of a recent trip to the Kilmartin Valley in Argyll, an area packed with prehistoric interest. She began by describing the Temple Wood series of stone monuments, about which there is speculation that it may have started life as a solar observatory. Burial cists, once covered with piles of stones, with some containing Beaker pottery and flint arrowheads were added later during the Bronze Age.

Moving on to Kilmichael, Carol described and showed slides of the stunning rock art on a huge boulder, consisting of a large spiral and concentric rings, as well as cup and ring markings.

Next on the expedition was a stiff walk up to the Castle Dounie Iron Age fort, with its magnificent views over the



Temple Wood Stone circle - Kilmartin

Sound of Jura. Proceeding with her talk, Carol moved on to nearby Dunadd hillfort, which was originally an iron age enclosure, thought to have been occupied later by the Scotti, who sailed from Ireland and gave their name to their new country. Later still it apparently became a seat of the Kings of Dal Riada who are thought to have ritually placed a foot into a depression shaped like a footprint during their coronation. Legend transforms this into Ossian's footprint

The Nether Largie district contains 3 cairns, the largest being the North cairn which is more than 20 metres across. The cairn was rebuilt following excavation and contains an inscribed stone with 40 cup marks and 10 axe heads. The cairn field is probably one of the oldest monuments in the Nether Largie valley, dating from the 3rd Millennium BC.

After a quick sprint through the medieval remains in the area, including numerous elaborately carved grave slabs and an early medieval cross, Carol ended her talk with a slide of a beautiful Jet necklace, dating from the second Millennium BC, which had been recovered from Glee Cairn.

The next speaker was Elisabeth Hodgson, who entertained the group by extolling the trials and tribulations involved in the purchase, investigation and modernisation of what was thought to be a coaching inn in the village of Brough. Elisabeth and her husband had purchased the building in a dilapidated state in 2009 after it had been unoccupied for many years. The property benefited from sandstone and brockram walls with clay mortar construction and original lime plaster, lath and plaster ceilings, a stand pipe but no internal plumbing, just two light fittings, a kitchen range dating from 1800 and a floor sloping by 2 feet from the front of the building to the back. Elisabeth had thought that this might have been to expedite the speedy handling of beer barrels. Later investigations began to suggest that although it may have been used as an inn at some time, the original use of the site may have been as a village bakery. This had been deduced from the hearth tax records. Elisabeth also said that the upper floor had been constructed with very strong joists and a number of windows, which had later been blocked up. A wooden shuttle and some wood fragments which might have been from a hand loom suggested that the upper floor might therefore have been used for weaving.

She explained that much assistance had been given by the Tullie House Museum in Carlisle, principally with the identification and dating of finds. These had included a fork dating from around 1690 and a decorated clay pipe bowl from 1600, interestingly about the time of the introduction of tobacco from the West Indies and the American colonies. A decorated button dating from the late 14C had also been discovered. Most of the artefacts were however later in origin. These included a single George III penny, Queen Anne pottery from the late 17C, pistol shot, Victorian pottery and, upon pulling down some lath and plaster ceiling, a mummified rat.

Elisabeth's prize find though was a child's leather boot, a real link with the previous inhabitants of the building. This connection was emphasised by the fact that one of Elisabeth's own children had been 6 years old at the time of discovery. Following her talk, members of the group were able to examine some of the finds which she had brought along.

The final speaker of the evening was Trish Shaw, who made everybody present yearn for blue skies and sunnier climes as she related her exploration of the Asklepieion of Kos during a recent holiday.

In ancient Greece, Asklepieia were centres of medicine and healing and were constructed on sites chosen for a perfect balance of air, water and land. They were dedicated to Apollo, the father of Asklepius, part human, part god and generally accepted to have been the first 'doctor'. Asklepieia became therapeutic centres for pupils, teachers, pilgrims and patients during the 6th and 5th centuries BC. Practitioners included high priests, physicians, gymnasts and physiotherapists, all dedicated to a holistic approach to life involving everything from healing to physical excellence and the arts. Patients at the Asklepieia followed a strict regime in three stages. Initially, they would spend 21 days of healing, bathing and exercise in the first Anderon, or terrace. Proceeding to the second terrace, they would be